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P A P E R S

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M A N U F A C T U R E S.

MANUFACTURES.

A Bounty of FIFTEEN GUINEAS was voted to Mr. ROBERT BURT, of Burnham, near Maidenhead, Berks, for his contrivance to be added to the common Spinning-Wheel, whereby the Spinner is enabled, at the same time she is spinning, to wind off a ball of thread, without any sensible addition of labour.

THIS contrivance was principally intended for winding thread for the use of shoe-makers, but may be applied to other purposes; and a spinning-wheel, with these additional parts, is reserved in the Society's Repository, for the inspection

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and use of the Public. As the Society have, this year, judged proper to offer a Premium for the best drawing, by youths, of Mr. Burt's Spinning-Wheel, a plate of it cannot properly be inserted in this volume, but may make part of some future publication.

MY LORDS AND GENTLEMEN,

I HAVE herewith sent a Winding and Spinning-Wheel, from my own invention, in hopes you will esteem and encourage me for my mechanisim. I am a cordwainer by trade: my mind led me to this invention by my wife's complaining the hemp cut her fingers in winding. I hope, Gentlemen, you will consider me as an industrious mechanick; and please to send me an answer, to let me know, when it will be agreeable to the Society for me to attend them, to explain
my

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my machine ; for which I hope they will reward me according to my merit.

I am, S I R,

Your most humble fervant,

ROBERT BURT.

Burnham.

Mr. MORE.

S I R,

I HAVE had the pleasure to receive your letter of the 22d inst. I am infinitely obliged to the Gentlemen of the Committee of Manufactures, for having been pleased to take into consideration the merits of the machine I invented for winding of thread, during the time of spinning. I do positively assert the machine to be entirely of my own invention, which I will attest, in case of the invention being contested, before any court of ju-

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dicature

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dicature or magistrate required. It is now nearly four years since I completed the contrivance ; during which time it has been constantly used by my wife, for the purpose of winding thread for the shoemakers in the neighbourhood, no spinner having a similar mode of winding thread : however, true it is, that I have permitted many persons to examine the invention. The expence of adding the machinery to the spinning-wheel, I conceive, cost me about eight shillings ; and, provided a number were ordered to be constructed, at the same time, with wheels of cast brass, or iron, upon my model, I imagine they might be had at about twenty-pence the pound ; consequently the weight must establish their value, which might be varied, and of which you must be a better judge than myself.

I hope I have replied to your questions, in a manner that will prove satisfactory
to

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to the Gentlemen of the Committee: if not, shall be happy to reply to any further questions they may have to propose to me.

I am, SIR,

Your most obedient humble servant,

ROBERT BURT.

*Burnham, Bucks,
Feb. 24, 1793.*

Mr. MORE.

TWENTY GUINEAS were this year voted to Mr. JOHN ANTIS, of Fulneck, near Leeds, for his ingenious method of causing the bobbin of the common Spinning-wheel to move backward and forward ; by which means, the time lost by stopping the wheel, to shift the thread from one staple, on the flyer, to another, as has hitherto constantly been practised, is avoided ; the danger of breaking the thread and loosing the end, obviated ; and the spinner enabled to do much more work, in a given time, than by any common spinning-wheel hitherto in use.

The annexed Plate will explain the mechanism by which this effect is produced : and a spinning-wheel, with the additional parts, is reserved in the Repository of the Society, for the use of the Public.

SIR,

S I R,

SINCE my return home, I have put in practice the idea which I imperfectly explained to you, of making the bobbin of the common spinning-wheel move backwards and forwards, in order to avoid the continual interruption, by changing the hooks, as is necessary with the old wheels : and I have the satisfaction to say, that it answers the utmost of my expectation. It would add a mere trifle to the expence of a new wheel, if made so from the beginning ; but it may also easily be added to old wheels, of whatever construction they may be. I had it tried by a lady here, who sometimes spins for her diversion, who was much pleased with the invention, and thought it might save a person at least two hours, if not more, in a day ; which would be a great object for poor people. I propose sending the wheel next week for the inspection

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tion of the Society, who will be best able to judge of the utility it may be to the public: to serve which, will always be a great satisfaction to,

S I R,

Your most obedient humble servant,

JOHN ANTIS.

*Fulneck,
March 29, 1793.*

Mr. MORE.

S I R,

THIS is to inform, that I have not had an opportunity till this day to send the spinning-wheel, with the improvements; which is enclosed in a box, directed to you. It goes by the Leeds waggon, which puts up at the Bull-and-Mouth Inn, London. and will arrive there on the 15th or 16th instant.

Having

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Having had opportunity to try it sufficiently, I do not at all doubt but it will answer. I made every thing as simple as possible; so that it might be in the poorest person's power to obtain it; and still it could be more so: for had I had a turner at hand, I would have made all on the wheel of wood; for a good piece of hard sycamore might have been so contrived, that, instead of the iron wire on the wheel, a rim might have been left standing, and cut in the same shape, which would answer as well: only, in that case, the pin on the lever would be better if it were a roller. There is a small lead weight, which goes over a pulley, and inclines the bobbin always one way; all which you will find easily.

The invention has also this advantage; that, whereas, at best, the old method always winds in ridges, if a thread breaks, by reeling the yarn, one may as well throw the whole bobbin away, as the thread cannot easily be found again: but this always
winds

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winds it across upon one another ; by which means the thread can never be lost.

I remain, SIR,

Your most humble servant,

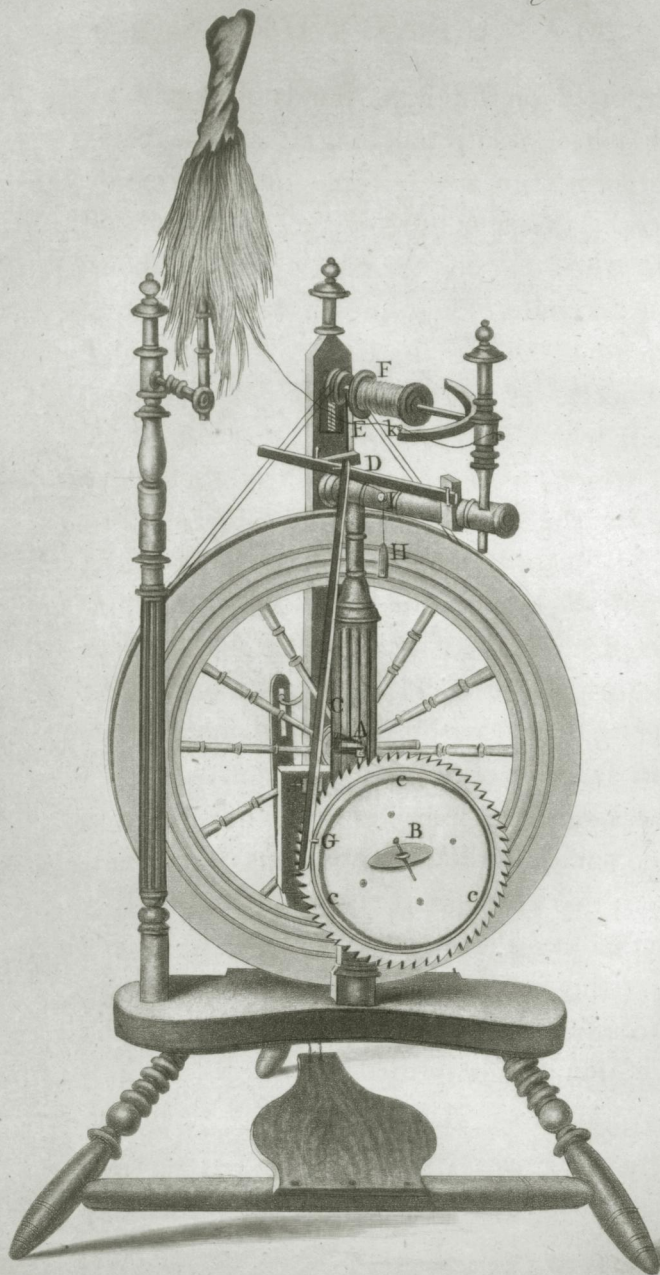
JOHN ANTIS.

*Fulneck,
April 10, 1793.*

*Explanation of the Plate of Mr. ANTIS'S
improved SPINNING-WHEEL.*

THE method of causing the bobbin to move backward and forward (which is the improvement here meant to be shown) is effected by the axis of the great wheel being extended through the pillar next the spinner, and formed into a pinion of one leaf, A, which takes into a wheel, B, seven inches diameter, having on its periphery ninety-seven teeth ; so that ninety-seven revolutions of the great wheel cause one of the lesser wheel. On this lesser wheel is fixed a ring of wire, *ccc* ; which, being supported

M^r Antiss's improved Spinning Wheel.



supported on six legs, stands obliquely to the wheel itself, touching it at one part, and projecting nearly three quarters of an inch at the opposite one: near the side of this wheel, is an upright lever, C, about fifteen inches long, moving on a centre, three inches from its lower extremity, and connected at the top to a sliding bar, D; from which rises an upright piece of brass, E, which, working in the notch of a pulley, drives the bobbin, F, backward and forward, according as the oblique wire forces a pin, G, in or out, as the wheel moves round. To regulate and assist the alternate motion, a weight, H, hangs by a line to the sliding bar, and, passing over a pulley, I, rises and falls, as the bobbin advances or recedes, and tends constantly to keep the pin in contact with the wire. It is evident, from this description, that one staple only is wanted to the flyer, which, being placed near the extremity, K, the thread passing through it, is, by the motion of the bobbin, laid regularly thereon.

Mr.